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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,343	03/04/2002	Ashley G. Price		4010

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EXAMINER

JOHNSON, EDWARD M

ART UNIT PAPER NUMBER

1754

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/090,343	<b>Applicant(s)</b> PRICE ET AL.	
	<b>Examiner</b> Edward M. Johnson	<b>Art Unit</b> 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,3-15 and 17-115 is/are pending in the application.
- 4a) Of the above claim(s) 34-57,65-88 and 96-115 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-15,17-33,58-64 and 89-95 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-4, 7-15, 17-18, 21-29, 32-33, 58-64, and 89-95 are rejected under 35 U.S.C. 102(b) as being anticipated by Khare et al. US 5,726,117.

Regarding claims 1 and 15, Khare '117 discloses a sorbent composition comprising manganese oxide (see column 2, lines 29-35), zinc silicate and/or zinc aluminate (see column 2, lines 50-55 and 63-67), nickel oxide (see column 3, lines 45-50) as oxide or elemental form (see column 4, lines 6-10), which would be at a stable valence state rather than an ionically charged state.

Regarding claims 3, 7-12, 16-17, and 21-29 Khare '117 discloses 5-10% nickel and/or cobalt oxide (see column 3, lines 45-46 and 51-54), and 15-60% zinc oxide or silicate (see column 2, lines 51-52 and 60-61) and 5-15% silica and/or alumina (see column 2, lines 35-44).

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Regarding claims 4, 18, 58-64, and 89-95, Khare '117 discloses 1-30% manganese oxide (see column 2, lines 33 and 37-40)

Regarding claims 13-14 and 32-33, Khare '117 discloses extrudates (see Example 1) and colloidal particles of 10-10,000 angstroms (see column 2, lines 10-15).

3. Claims 1, 3-15, 17-29, 32-33, 58-64, and 89-95 are rejected under 35 U.S.C. 102(b) as being anticipated by Moskovitz et al. US 5,948,726.

Regarding claims 1 and 15, Moskovitz '726 discloses a sorbent composition comprising alumina and oxides of manganese, zinc, nickel, and/or cobalt (see column 13, lines 27-35) with binder that comprises silica (see claims 1 and 4). All are disclosed at stable valence states.

Regarding claims 3, 7-12, 17, 21-29, Moskovitz '726 discloses 1-90% oxides of nickel, cobalt, and/or zinc (see 13, lines 27-35 and claim 30) and 20 parts alumina and silica (see column 12, lines 55-65).

Regarding claims 4-6, 18-20, 58-64, and 89-95, Moskovitz '726 discloses up to 50% manganese oxide (see Table 2).

Regarding claims 13-14 and 32-33, Moskovitz '726 discloses extruding, spheres, pellets, and a particle size of 5-250 microns (see column 10, lines 20-22 and 43-48).

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4. Claims 1, 3-4, 7-15, 17-18, 21-23, 27-29, 32-33, 58-64, and 89-95 are rejected under 35 U.S.C. 102(b) as being anticipated by Thakur et al. US 5,134,108.

Regarding claims 1 and 15, Thakur '108 discloses a catalyst comprising a combination of oxides of manganese, nickel, and zinc (see abstract) in different valence states (see column 4, lines 18-20) silica, and alumina (see column 1, lines 24-27).

Regarding claims 4, 7-12, 18, 21-23, 27-29, 58-64, and 89-95, Thakur '108 discloses 3-10% manganese oxide and up to 15% oxides of manganese, nickel, cobalt, and/or zinc oxide (see column 3, lines 15-24 and paragraph bridging columns 4-5) in solution (see claim 1).

Regarding claims 13-14 and 32-33, Thakur '108 discloses pellets (see column 10, lines 40-43) and 16-20 micron diameter particles (see abstract).

5. Claims 1, 3-15, 17-33, 58-64, and 89-95 are rejected under 35 U.S.C. 102(b) as being anticipated by Schlaefer et al. US 4,078,004.

Regarding claims 1 and 15, Schlaefer '004 discloses a composition comprising crushed perlite and iron or cobalt molybdate (see abstract and column 1, lines 58-63) wherein the perlite comprises silica, alumina, and manganese oxide (see column 2, lines 53-60), all at stable valence states.

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Regarding claims 3, 7-12, 17, 21-23, and 27-29, Schlaefer '004 discloses 0.01 to 20 percent of Zn and/or Co (see column 5, lines 3-4) and 0-20% nickel (see column 5, line 15).

Regarding claims 4-6, 18-20, 58-64, and 89-95, Schlaefer '004 discloses 1-50% manganese oxide (see column 5, line 14).

Regarding claims 13-14 and 32-33, Schlaefer '004 discloses extruding (see Example 8) spheres (see column 3, lines 33-38), and up to 25% with a diameter of less than 10,000 angstroms (see Example 11).

Regarding claims 24-26, Schlaefer '004 discloses 0-50% Si (see column 4, lines 33 and 46).

Regarding claims 30-31, Schlaefer '004 discloses expanded and crushed/fragmented perlite (see abstract and column 3, lines 12-38).

#### ***Response to Arguments***

6. Applicant's arguments filed 5/24/05 have been fully considered but they are not persuasive.

Applicant's previously submitted remarks are not persuasive for reasons already of record.

It is newly argued that the Examiner states "... the cited prior art... an ionic charge." This is not persuasive because in chemistry, molecules and atoms having no charge and a stable,

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zero valence are generally unlabeled. And only positive or negative charges are designated with a "+" or "-".

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the

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organization where this application or proceeding is assigned is  
(703) 872-9306.

Any inquiry of a general nature or relating to the status  
of this application or proceeding should be directed to the  
receptionist whose telephone number is 571-272-0987.



Edward M. Johnson  
Examiner  
Art Unit 1754

EMJ